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EXAMINER

NALEVANKO, CHRISTOPHER R

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2611

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/695,228	Applicant(s) MARKO ET AL.	
	Examiner Christopher R. Nalevanko	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/30/2005 have been fully considered but they are not persuasive.

Regarding Claims 1 and 17, Applicant argues that “Foster et al fails to teach or suggest the claimed features of a memory device for storing ‘*content transmitted in a broadcast signal using said digital broadcast system, the content comprising data files, said data files being partitioned into segments that are interspersed in said broadcast signal, said broadcast signal being provided with at least one header comprising information indicating the number of said segments that constitute at least one of said data files and information to identify each of said segments*’, among other features. . . . Foster et al does not create sub-blocks prior to transport and therefore does not teach or suggest storing content in a broadcast signal having data files partitioned into segments interspersed a broadcast signal, as claimed. Further, neither the packets in the transport stream 210 nor the sub-blocks in Foster et al indicate the number of segments that constitute a partitioned file nor identify each segment, as claimed in claim 1” (page 2 lines 6-19). Examiner asserts that Foster clearly creates “sub-blocks prior to transport” and therefore teaches data files partitioned into segments interspersed in a broadcast signal. Foster clearly shows that an MPEG transport stream is sent to the user’s set-top box (col. 3 lines 65-67, MPEG transport stream). Additionally, Foster clearly explains that the MPEG transport stream is broken up into multiple packets (col. 4 lines 55-67, program transmission signal includes stream bytes and stream packets, size of *packet*

used in the transport stream can be made small). Also, Foster discloses that the “transport stream 210 includes packets of 188 bytes in length including a header of four bytes” (col. 5 lines 43-67, transport packets with header). This transport stream is the stream that is received from the transmission facility and clearly is broken up into multiple packets, as necessitated by the claimed limitation. Finally, the stream of Foster clearly includes a header (col. 5 lines 43-45, stream 210 includes a header) that describes the packet and data file (col. 5 lines 45-55, header contains data about the type of data received). Foster subsequently discloses that the packets are 188 bytes long, which discloses the number of segments that make up a particular file.

Regarding Claims 3, 5, and 9, Applicant argues that “the references to Foster et al relied on in the Office Action that refer to a header created for a sub-block do not disclose or suggest the claimed invention since these headers are generated at the set-top box and not transmitted in a broadcast signal, as claimed” (page 2 lines 22-26). As discussed above, Foster clearly shows the user of a header that is included in the transport stream (col. 5 lines 43-67, *transport stream 210 includes packets and a header of four bytes*). Since this transport stream is the stream received by the set-top box, before processing at the receiver, the stream contains a header and is in packets (see fig. 1 and 2, transport stream as input to set-top box from broadcast head-end). Also, Foster clearly states that the packets are 188 bytes long, which shows the length of the sub-blocks (col. 5 lines 43-45).

Regarding Claim 12, Applicant argues that “Foster et al, however, does not disclose or suggest determining whether all segments of a data file are received...and then

storing completely received and incompletely received data file in respective portions of memory” (page 3 lines 5-10). Examiner asserts that Foster clearly shows the use of a queuing buffer system to store incompletely received data files (col. 4 lines 25-37, col. 6 lines 13-35, queuing buffers for storing incoming data into full blocks). The system stores incoming data in the buffer, and when the buffer is filled with a completely packet size, the entire packet is written to the mass storage (col. 4 lines 25-37, col. 6 lines 13-35, 50-60, data blocks of fixed size writing to memory after stored in buffer). The buffer clearly meets the limitation of storing incompletely received data files and the mass storage, or HDD, clearly meets the limitation of storing completely received data files.

Regarding Claim 17, Applicant argues that “Foster et al does not disclose selecting a data file received from a broadcast signal that is characterized in the broadcast signal by a header indicating the number of segments that constitute the data file. Thus, Foster et al does not disclose or suggest analyzing a header in the broadcast signal to identify segments in a selected data file for storage” (page 3 lines 23-26). As discussed above, Foster shows a broadcast signal that includes a header indicating the number of segments, or byte size, of a file (see above discussion). Furthermore, Foster shows that the set-top box reads the incoming segments, including the header, to identify what type of file is being received (col. 5 lines 45-50, each of these packets contains a distinct type of data such as audio or video data and the type of data is indicated in the header of the respective packet). Therefore, the set-top box analyzes the incoming packet and header.

Regarding Claim 18, Applicant argues that “Foster et al does not perform monitoring as claimed, as the Office Action appears to suggest. The filling of buffers, as

taught by Foster et al and relied on in the Office Action, does not teach or suggest monitoring those segments of a selected data file, which are identified via a header in a received broadcast signal, that are not yet received and stored. Nothing in the description of the transport headers or sub-blocks teaches or suggests determining which segments in a data file have not been received” (pages 3-4 lines 27-1). Foster explicitly states that “two parallel processes” are performed to determine if data files have been received (col. 8 lines 15-35). These processes count the amount of data in the buffer and compare it to a preferred data size (col. 8 lines 15-20, preferred value of total data size is counted). As stated in Foster, “the blocks of audio and video data are then queued to the buffers forming storage queues until the total data size established by the BTI value or count set at 520 is reached” (col. 8 lines 19-21). This process effectively determines when data files have been received. When the buffer is filled, the entire data file has been received and is subsequently stored in mass storage.

Regarding Claim 2, Applicant argues that “Rieger III does not disclose...alerting” (page 4 lines 15-16). Rieger clearly shows that an audio alarm is triggered when data has been correctly received (col. 5 lines 40-50, after capturing transmission, receiver emits audio alarm to attract attention to newly saved data). This clearly meets the claimed limitation of “alerting.” Furthermore, the remainder of the arguments with regards to a “header” have been discussed above in light of the Foster et al reference.

Regarding Claims 6, 7, 13-15, 20 and 21, the Applicant’s arguments regarding the Morrison reference have been discussed above regarding the Foster et al reference.

Regarding Claims 8 and 16, the Applicant's arguments regarding the Wolzien reference have been discussed above with regards to the Foster et al reference.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-5, 9, 12, 17, and 18 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Foster et al (6,801,536).

Regarding Claim 1, Foster shows a receiver in a digital broadcast system comprising a memory device for storing content transmitted in a broadcast signal (fig. 1 item 150, col. 4 lines 10-20, HDD), the content comprising data files, each file being partitioned into segments that are in the broadcast signal (col. 3 lines 4-15, col. 4 lines 60-67, col. 5 lines 43-67, packets), the signal being provided with at least one header comprising information indicating the number of segments that constitute one of the files, and information identifying the segments (col. 5 lines 40-67, col. 6 lines 38-64, type of data and block size). Foster further shows a reception device for receiving the broadcast signal and processing the signal to obtain the content including segments corresponding to the data files (see fig. 1), and a processing device connected to the memory device and reception device and being programmable to allocate at least one section in the memory for storing the data file (fig. 1, host processor and memory controller, col. 6 lines 50-65,

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col. 9 lines 1-15, FAT on storage medium), storing the segments of the data file in the allocated section (fig. 1, host processor and memory controller, col. 6 lines 50-65, col. 9 lines 1-15, FAT on storage medium) and to monitor the progress of the allocated section (col. 7 lines 1-47, using interrupts and time stamps to fill buffers that send data to the HDD).

Regarding Claim 3, Foster shows that the header indicates the size of the data that needs to be stored (col. 3 lines 5-15, col. 4 lines 38-55, col. 5 lines 40-67, col. 6 lines 38-64, type of data and block size). This would inherently be the allocation size necessary to store the data in memory.

Regarding Claim 4, Foster shows that each segment has a header that identifies the total number of segments (col. 7 lines 12-18, unitary header provided for the total data block size) and an identification code (STC) (col. 8 lines 60-67, col. 9 lines 1-13, using look up table to identify the STC in storage location for playback). The STC code in the header indicates the order in the file (col. 7 lines 5-35, col. 9 lines 1-23, STC in header).

Regarding Claim 5, Foster shows that the header indicates the size of the data that needs to be stored (col. 3 lines 5-15, col. 4 lines 38-55, col. 5 lines 40-67, col. 6 lines 38-64, col. 7 lines 12-18, type of data and block size, unitary header provides for the block size). Furthermore, a block size buffer, that uses the total block size, is used to fill the memory (col. 7 lines 1-18, block size buffer and total data block size in header). This would inherently be the allocation size necessary to store the data in memory.

Regarding Claim 9, Foster shows that the header file contains identification codes for the segments that indicate the order the segments are to appear in playback (col. 8 lines 21-67, col. 9 lines 1-23, STC used for synchronization of playback), and the ability to determine if the segments have been stored (col. 8 lines 15-35, using a buffer that continually adds data until full, then stores the data together, effectively determining if and when data should be stored).

Regarding Claim 12, Foster shows a storage for storing a first portion of complete data files (col. 4 lines 10-25, HDD) and a storage for second portions that are being received, or a buffer (col. 6 lines 38-65, col. 3 lines 1-15, storing data in buffer prior to storage on hard disk).

Regarding Claim 17, Foster shows a method of implementing a file transfer from a broadcaster to a receiver in a digital system comprising receiving a broadcast signal having content comprising data files, each file being partitioned into segments that are in the broadcast signal (col. 3 lines 4-15, col. 4 lines 60-67, col. 5 lines 43-67, packets), the signal being provided with at least one header comprising information indicating the number of segments that constitute one of the files, and information identifying the segments (col. 5 lines 40-67, col. 6 lines 38-64, type of data and block size). Foster further shows that after the buffer is full, the data is selected for storing on the hard disk (col. 7 lines 1-18, fixed size total data block is stored), storing the segments of the data file in the allocated section (fig. 1, host processor and memory controller, col. 6 lines 50-65, col. 9 lines 1-15, FAT on storage medium), allocating at least one section in the memory for storing the data file (fig. 1, host processor and memory controller, col. 6 lines

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50-65, col. 9 lines 1-15, FAT on storage medium), analyzing the information in the header to identify segments (col. 5 lines 44-67, analyzing header), and storing segments in the portion of the memory corresponding to the file (col. 6 lines 38-65, storing data according to STC so data will be stored in correct sequence).

Regarding Claim 18, Foster shows monitoring what data files have not been received and stored and stores them accordingly ability to determine if the segments have been stored (col. 8 lines 15-35, using a buffer that continually adds data until full, then stores the data together, effectively determining if and when data should be stored). By using this buffer, Foster is able to ensure data is fully received before storing the data onto the storage device.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 10, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al (6,801,536) in further view of Rieger, III (5,732,324).

Regarding Claim 2, Foster shows an output device connected to the processing device (fig. 1 item 190). Foster fails to show generating an alert message when the segments of the data file have been stored in memory. Rieger shows alerting the user on

an output device when data segments have been stored in memory (col. 5 lines 40-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the alert message of Rieger show that a user would be aware when data had been downloaded to the receiver.

Regarding Claim 10, Foster fails to show that the segments are rebroadcast and the system determines what data has been stored, subsequently discarding repeated data and saving new data. Reiger shows that the segments are rebroadcast and the system determines what data has been stored, subsequently discarding repeated data and saving new data (col. 4 lines 25-43, 55-65, using identification information to determine repeated signals and preventing storage). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to ignore repeated signals as in Rieger so that the user would not store more than one copy of the data.

Regarding Claim 19, Foster fails to show that the segments are rebroadcast and the system determines what data has been stored, subsequently discarding repeated data and saving new data. Reiger shows that the segments are rebroadcast and the system determines what data has been stored, subsequently discarding repeated data and saving new data (col. 4 lines 25-43, 55-65, using identification information to determine repeated signals and preventing storage). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to ignore repeated signals as in Rieger so that the user would not store more than one copy of the data.

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4. Claims 6, 7, 13-15, and 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al (6,801,536) in further view of Morrison (5,815,671).

Regarding Claim 6, Foster fails to show a data field comprising an expiration data for the data file. Morrison shows message data codes that determine different aspects of the sent data (col. 6 lines 14-67, col. 7 lines 1-65). Included in this data is time period data, which controls the receiving system to stop displaying certain data after a certain time period, effectively expiring the data (col. 7 lines 49-65, time period). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to include auxiliary data that could express expiration time as in Morrison so the system would have more parameters to further control the display of data.

Regarding Claim 7, Foster fails to show a message identification code. Morrison shows that each message is assigned a message identification code to indicate which of a plurality of receivers are to receive the message (col. 6 lines 14-67, col. 7 lines 1-65) and the processing device being able to store a message with a certain code and discard other messages with different codes (col. 7 lines 15-46, using certain data and discarding others based on user preferences). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to include message code data that could express more detailed data about a broadcast as in Morrison so the system would have more parameters to further control the display of data.

Regarding Claim 13, Foster shows a method of transmitting content files comprising partitioning the files into segments (fig. 2 data blocks), assigning the data

files with identification codes for the segments that indicate the order the segments are to appear in playback (col. 8 lines 21-67, col. 9 lines 1-23, STC used for synchronization of playback, using look up table to determine the STC of data in memory), including the segments in the broadcast signal (col. 3 lines 4-15, col. 4 lines 60-67, col. 5 lines 43-67, packets), and providing each segment with a header that identifies the total number of segments and an identification code (STC). The STC code in the header indicates the order in the file (col. 7 lines 5-35, col. 9 lines 1-23, STC in header, using look up table to determine the STC of data in memory). Foster fails to show a message identification code. Morrison shows that each message is assigned a message identification code to indicate which of a plurality of receivers are to receive the message (col. 6 lines 14-67, col. 7 lines 1-65) and the processing device being able to store a message with a certain code and discard other messages with different codes (col. 7 lines 15-46, using certain data and discarding others based on user preferences). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to include message code data that could express more detailed data about a broadcast as in Morrison so the system would have more parameters to further control the display of data.

Regarding Claim 14, Morrison further shows rebroadcasting data segments (col. 6 lines 25-40, repeated transmission).

Regarding Claim 15, Morrison shows message data codes that determine different aspects of the sent data (col. 6 lines 14-67, col. 7 lines 1-65). Included in this data is time

period data, which controls the receiving system to stop displaying certain data after a certain time period, effectively expiring the data (col. 7 lines 49-65, time period).

Regarding Claim 20, Foster fails to show a rebroadcast schedule. Morrison shows that rebroadcasts of data files are scheduled throughout a day (col. 6 lines 14-40).

Furthermore, Morrison shows that the system operates the receiver to automatically tune to the rebroadcast signal, extracts elements which have not been stored, and storing these segments (col. 6 lines 14-40). Morrison shows a system that rebroadcasts data several times a day. If the system has not stored a rebroadcast file, this gives the receiver the opportunity to store the file. Furthermore, although not specifically stated, it is nonetheless inherent that a storage device, upon receiving any data, is always a "percentage full". It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to rebroadcast and store certain files as in Morrison so that the system would ensure the receiver downloaded necessary files.

Regarding Claim 21, Foster fails to show a message identification code. Morrison shows that each message is assigned a message identification code to indicate which of a plurality of receivers are to receive the message (col. 6 lines 14-67, col. 7 lines 1-65) and the processing device being able to store a message with a certain code and discard other messages with different codes (col. 7 lines 15-46, using certain data and discarding others based on user preferences). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to include message

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code data that could express more detailed data about a broadcast as in Morrison so the system would have more parameters to further control the display of data.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al (6,801,536) in further view of Rieger, III (5,732,324) and Morrison (5,815,671).

Regarding Claim 11, Foster and Rieger fail to show automatically operating the receiver at a selected time of day to receive and store segments that have not been stored yet. Morrison shows automatically operating the receiver at a selected time of day to receive and store segments that have not been stored yet (col.6 lines 25-42, transmitted at a number of convenient times throughout 24 hour day, as well as repeated transmission). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster with the ability to repeatedly send data at different times as in Morrison so that the user was ensured the data was received and that the receiving would not interrupt operation of regular playback.

6. Claim 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foster et al (6,801,536) in further view of Morrison (5,815,671) and Wolzien (2003/0212996).

Regarding Claim 8, Foster and Morrison fail to show that the code can correspond to a model of a car. Wolzien shows code identification information that identifies a type of car the user is driving (page 7-8 section 58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foster and Morrison with the ability to use car type data as in Wolzien so that information about a particular vehicle could be relayed to the user.

Regarding Claim 16, all of the claimed limitations have been discussed with regards to Claim 8.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Nalevanko whose telephone number is 571-272-7299. The examiner can normally be reached on M-F 8-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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